

## ABSTRACT

A hybrid electric vehicle, such as a bus or delivery vehicle, includes batteries and a turbogenerator/motor connected through a double conversion control system. The batteries and the turbogenerator/motor are each connected to a DC bus through bi-directional power converters operating as customized bi-directional switching converters configured, under the control of a power controller, to provide an interface between the DC bus and the batteries and turbogenerator/motor, respectively.

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